

Thyroid Stimulating Hormone Receptor (TSHR)

CELL LINE DESIGNATION
ORIGIN (PARENTAL CELL)
GENE INTRODUCED
RECEPTOR INTRODUCED:

Thyroid Stimulating Hormone Receptor cell line
HEK 293H-CNG cell (Cat# 341467)
Genbank LocusID 7253
Human Thyroid Stimulating Hormone Receptor
(NCBI protein database AAR07906)

USAGE

- cAMP assay for Gs-coupled human TSH receptor.
- HEK293H-CNG cells (cat# CB-80200-242) without transfected TSH receptor is used as a negative control.

QUALITY CONTROL

1. This cell line has been tested negative for *Mycoplasma sp.*
2. This cell line has been tested positive for Thyroid Stimulating Hormone Receptor specific response.
3. Surviving rate: More than 2.5 million/vial on the second day after thawing.
4. The receptor specific activity is stable for 10 weeks continuous passage.

CELL CULTURE CONDITION

1. Growth medium: 90% DMEM, 10% FBS, 250 µg/ml G418 and 1 µg/ml puromycin
2. Freezing medium: 10% DMSO, 90% FBS

DATA EXAMPLE

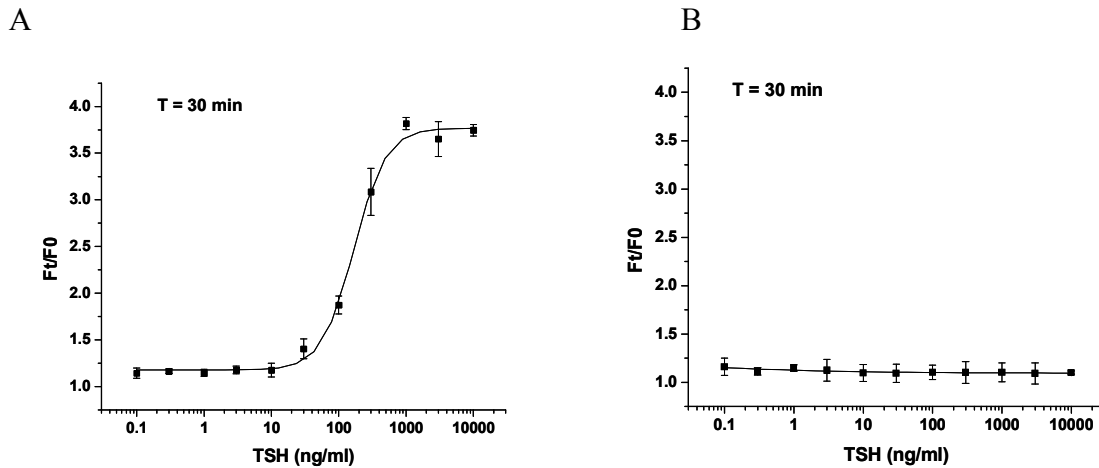


Figure 1. Response of ACTOne TSHR cell line & parental cell line to TSH.

ACTOne TSHR cells and parental cells (Cat# CB-80200-242) were plated overnight in 20 µl culture medium on a BD Biocoat 384 well plate. The next day, cells were dye-loaded with 20 µl/well of 1X Dye-loading solution (ACTOne Membrane Potential Assay Kit). After 2 hours of incubation at room temperature, two readings were obtained prior to and 30 min after the addition of TSH. Ratios of the two readings (F/F0) are plotted in the figure.

- A. Dose response curve of TSH in ACTOne TSHR cell line. EC50 = 167 ng/ml (5.2 nM) in the presence of PDE inhibitor Ro20-1724.**
- B. Parental cells do not respond to TSH.**